

REMARKS

Claim 1, 13, 14, 15, and 29 have been amended in regard to the recitation for the substituent Z^3 .

Entry of the amendment is respectfully requested.

Art Rejections over Ichihashi

In addition to the remarks of record, reconsideration of which is respectfully requested in view of the entry of the Amendment filed October 21, 2010 as requested in the RCE submitted concurrently herewith, Applicants have the following comments.

Ichihashi describes in US 6,686,980, in example 3, in columns 11 and 12, a composition 1 comprising a polymerizable dichroic bis-azo dye having an alkylene spacer, a butylene and a pentylene spacer linking the polymerisable groups with the bis-azo core structure.

In contrast to this dye disclosed by Ichihashi, the present invention relates to dyes having an $-O-CH_2$ -alkylene spacer ($= -Z^3-S^1-$ or $-Z^3-S^2-$).

Applicant submits that there is no teaching given by Ichihashi to replace the diazo compound of composition 1 with that of the present invention. Hence, a skilled person would not be motivated to do so.

In addition, Ichihashi describes that its diazo dye has to be used in a composition comprising another diazo dye and a monomer having multi polymerisable groups.

Very astonishingly, in the present invention it was found that the azo dyes of the invention can be used also as a single liquid crystalline compound (see page 35 of the present application, which discloses “examples for the preparation of dichroic mixtures”), without any

further liquid crystalline monomer or copolymerizing monomer having multi polymerizable groups.

Much more surprisingly, it was found that the azo dyes of the invention gives access to good orientated liquid crystalline layers having high order parameters (see examples 24-30).

Applicants submit that it could not be foreseen that such good orientation qualities can be accessed by using only a single diazo dye, starting with the teaching of Ichihashi.

Hence, Applicants submit that the present invention is patentable over the teaching of Ichihashi, and withdrawal of the rejections over Ichihashi is respectfully requested.

Comments in Advisory Action regarding Formulae IIIa and IIIb

In the Advisory Action, the Examiner indicates that “the present formulae IIIa and IIIb can be simplified by rewriting repeating unit $-(\text{Ar1-N=N-})_{q1}-(\text{Ar2-N=N-})_{q2}-(\text{Ar3-N=N-})_{q3}-(\text{Ar2-N=N-})_{q4}$ as $-(\text{Ar1-N=N-})_{q1}$ and $q1$ is 1 or 2.”

However, by doing so, Applicants submit that the formulae would not only be simplified, but also restricted in scope, because in the present formulae the Ar1, Ar2, Ar3, and Ar4 groups can be different, while the Ar1 groups in the simplified formulae are defined to be identical.

Since there is no prior art forcing Applicants to restrict the claim scope, Applicants consider that such a restriction would be an unjustified penalty.

Further, Applicants consider that formulae IIIa and IIIb are based on a rational, clear and precise structure, which can easily be understood by a skilled person in the art.

Therefore, Applicants respectfully request that these formulae remain as presented.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

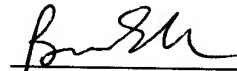
WASHINGTON OFFICE

23373

CUSTOMER NUMBER

Date: November 22, 2010

Respectfully submitted,



Bruce E. Kramer
Registration No. 33,725